



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,818	01/21/2005	Koji Yamada	12065-0020	2397
22902	7590	08/21/2009	EXAMINER	
CLARK & BRODY			YANG, JIE	
1090 VERMONT AVENUE, NW			ART UNIT	
SUITE 250			PAPER NUMBER	
WASHINGTON, DC 20005			1793	
			MAIL DATE	DELIVERY MODE
			08/21/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,818

**Applicant(s)**

YAMADA ET AL.

**Examiner**

JIE YANG

**Art Unit**

1793

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### DETAILED ACTION

Claims 1, 3, and 4 are pending in application. No amendments to the claims have been made.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al (US 5,252,305, thereafter, US'305) in view of Yamada (JP 2000-248322, thereafter, JP'322) and further in view of Jones et al (US 6,699,302 B1, Thereafter, US'302).

US'305 in view of JP'322 and US'302 is applied to the claims 1 and 4 for the same reason as stated in the previous office actions dated 11/28/2007, 6/5/2008, and 11/25/2008.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'305 in view of JP'322 and US'302 as applied on claims 1 and 4, and further in view of Yokoyama et al (US 5,735,933, thereafter US'933).

Claim 3 is dependent on claim 1, US'305 in view of JP'322 and US'302 teaches limitation of claim 1 as discussed above. US'933 is further applied to the claim 3 for the same reason as stated in the previous office actions dated 11/28/2007, 6/5/2008, and 11/25/2008.

### ***Response to Arguments***

Applicant's arguments filed on 5/29/2009 with respect to claims 1, 3, and 4 have been fully considered but they are not persuasive.

Applicant's arguments are summarized as follows:

1) The Examiner misunderstands the difference between the copper content of molten oxides obtained from an oxidizing furnace 1 for the copper content of the molten slag obtained from the electric furnace 3 in JP'322. Also refer to the "Supplemental Response" filed on 10/8/2008. The slag does not come into play in recovery of PGM as it does in the present invention and JP'322 does not supply the missing element from the primary reference.

2) The 5.55g (0.36%) of the copper content in the slag in US'302 is one that is obtained in a crucible test using a dead roasted furnace matte, which is not proper to regard this refining as similar in nature to a method of recovering PGM from waste catalyst. In addition, one point data of US'302 is unsupported to conclude that the invention is obvious.

Responses are as follows:

Regarding the arguments 1) and 2), the applicant's arguments are against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, US'305 in view of JP'322 and US'302 is applied to the claims 1 and 4, and US'305 in view of JP'322 and US'302, and further in view of US'933 is applied to the claim 3. US'305 teaches a process of recovering a platinum group metal. US'305 teaches charging, melting, enriching the platinum group elements, and separating steps as recited in the instant claims. Although US'305 does not specify the ascertaining the copper content of the molten slag by sampling and analyzing, both JP'322 and US'305 teach the sampling and analyzing processes and more specifically, US'305 teaches that the Cu in slag is 5.55g in 1517g slag (0.36 wt%) in order to obtain a recovery of 99.0% PGMs (col.20, lines 24-53 of US'302), which is within the claimed copper content range 3.0wt% or less as recited in the instant claims. Therefore, the method of sampling and analyzing of slag would be obvious to one skilled in the art and the Applicant has not provided any unexpected results over the prior arts in the record. The detail motivation for the combination of the prior arts can refer to the previous office actions dated 11/28/2007, 6/5/2008, and 11/25/2008.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-270-1884. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/  
Supervisory Patent Examiner, Art Unit 1793